

### REMARKS

Claims 1, 3, 5-18 and 20-26 are pending. Claims 1, 3, 14, 15, 18, 20 and 26 are amended. Claims 2, 4 and 19 are canceled. The remaining claims are unchanged.

In the Office Action, the claims were again rejected under 35 U.S.C. § 102(e) as anticipated by Agraharam et al., U.S. Patent No. 5,987,508.

Applicant's attorney wishes to thank Examiner Delgado for the courtesy extended in discussing the Office Action in the telephonic interview of October 7, 2004. In the interview, Applicant's attorney explained how Agraharam only shows a routing function, not a "virtual domain node," and specifically fails to disclose or suggest "associating a plurality of virtual domain attributes to the virtual domain node." The Examiner offered to reconsider the rejections in the Office Action if Applicant would clarify the meaning of "virtual domain attributes" by amending claim 1 to recite the virtual domain attributes recited in claim 2. Claim 1 and independent claims 14, 18 and 26 have been amended accordingly. Applicant's attorney wishes to thank the Examiner for offering to reconsider the claim rejections in view of this Amendment.

The Office Action stated that Agraharam discloses a "virtual domain node," corresponding to the subject matter described in the application as filed at page 4, lines 9-14. (Office Action, page 2, paragraph 1). In addition, the Office Action stated that Agraharam also shows "associating a plurality of virtual domain attributes to the virtual domain node," in the form of a Personal Identification Number (PIN) associated with a user registration process. (Office Action, page 2, paragraph 2).

As explained in the October 7th interview, the reliance on the application as filed at page 4, lines 9-14 to define "virtual domain node" is misplaced, as is the reliance on Agraharam to support the claim rejections under 35 U.S.C. § 102(e). These rejections are not supported by the cited art and must be withdrawn for the reasons below.

Claim 1, by way of example, is drawn to a method for defining a virtual domain node in an electronic messaging system, including the features of:

defining a virtual domain node corresponding to a real domain name server in a hierarchically organized directory wherein the hierarchically organized directory is a hierarchical structure that resembles a tree with one major branch at the top and many branches and sub-branches below; and

associating a plurality of virtual domain attributes to the virtual domain node, the plurality of virtual domain attributes selected from a designated virtual domain administrator, a designated virtual domain postmaster, a state of the virtual domain, and a set of allowed services for the virtual domain.

As explained in the October 7th interview, the method of claim 1 defines a virtual domain node corresponding to a real domain name server in a hierarchically organized directory. By defining a virtual domain node in this manner, for example, a mail server can offer email services to multiple organizations each of which have their own virtual domain. The virtual domain attributes enable each virtual domain node to function as a real domain name server. For instance, a virtual domain administrator can be designated, as recited in claim 1. This administrator can be authorized to manage the particular virtual domain. In addition, a virtual domain postmaster can be designated, as further recited in claim 1. The postmaster can identify email message delivery problems. Also, a state of the virtual domain, as recited in claim 1, can indicate that mail is to be received, or that the virtual domain node is inactive, or no longer exists. Also, virtual domain attributes can include a set of allowed services for the virtual domain, as further recited in claim 1. Agraharam fails to provide any of the above virtual domain attribute features. This is because Agraharam only teaches an email routing or translation service, not a virtual domain node.

The Office Action asserts on page 2, paragraph 1:

In applicant's disclosure at page 4, lines 9-14, an example of a virtual domain was disclosed. A virtual domain 'ABC.com' was mapped to a real domain 'mailhost.isp.net.' The notion of being virtual is accomplished by 'ABC.com' being an alias for the real domain 'mailhost.isp.net.'

As explained in the telephone interview of October 7<sup>th</sup>, the above citation to the application as filed is entirely misplaced, because the citation refers to the "Background" section of the application, describing a conventional routing service as shown in Fig. 1. Nowhere in the Background section does the Applicant define "virtual domain" or "virtual domain node" in terms of the described routing function.

Indeed, the above-cited portion of the application as filed describes a translation function that translates between ABC.com and mailhost.isp.net. Thus, Applicant agrees with the Examiner that the conventional system described in the Background Section corresponds to the translation or routing function described by Agraharam. However, this only proves that Agraharam describes another conventional routing service which fails to provide the features of claim 1. As further explained in the Background section of the application as filed, it is this conventional routing service which has associated problems that can be addressed by defining a virtual domain node, for example, as recited in claim 1:

Since the email system 100 requires a separate mail server to be supported by the SP 106 for each of the domains abc.com through xyz.gov, although well understood and easy to manage, the email system 100 is not cost effective for small domains. In addition, as the number of domains increases, the management of the individual services becomes increasingly unwieldy. . . . It is therefore desirable that an email service provider be able to offer email services to multiple organizations each of which has their own virtual domain and to support the ability to define such domains in the directory and host them on a shared mail server. (Page 4, lines 15-25; Application as filed).

In short, it is improper for the Examiner to ignore language recited in claim 1, such as "a plurality of virtual domain attributes," and read in the above-cited description

of the prior art, unrelated to virtual domains or virtual domain nodes, to attempt to define the claim term "virtual domain node" for the clear purpose of equating that term with Agraharam's teachings in hindsight. This is an improper basis for a claim rejection. It is unsupported by the Background section of the application as filed, as well as the Agraharam patent. Therefore, the rejection must be withdrawn.

The Office Action again asserts on page 2, paragraph 2, that Agraharam discloses "a plurality of virtual domain attributes" in the form of a Personal Identification Number (PIN) associated with a user registration process. As explained in the response of June 15, 2004, and again in the telephone interview of October 7<sup>th</sup>, the PINs described by Agraharam do not correspond to "virtual domain attributes." This is because the PINs are associated with a user, simply enabling the user to access a system and manage the user's account (column 7, line 16-27). These PINs are in no way associated with a "virtual domain node," because Agraharam fails to disclose or suggest a virtual domain node in the first place.

Moreover, even if Agraharam disclosed a virtual domain node, a PIN assigned to a user for security purposes is not "a plurality of virtual domain attributes" associated with the virtual domain node. For instance, the user's PIN does not designate a virtual domain administrator, designate a virtual domain postmaster, indicate a state of the virtual domain, nor provide a set of allowed services for the virtual domain, as recited in claim 1. In short, a user's security PIN has nothing to do with these "virtual domain attributes," and the Office Action fails to set forth any reasonable basis for the position that a PIN somehow reads on "virtual domain attributes." Again, the reliance on Agraharam for the 35 U.S.C. § 102(e) rejection is misplaced. Agraharam only teaches an email routing function. Agraharam does not disclose or suggest "a virtual domain node,"

nor does it disclose "a plurality of virtual domain attributes." Accordingly, the 35 U.S.C. § 102(e) rejection is not supported by the art, and must be withdrawn.

In the telephone interview of October 7<sup>th</sup>, the Examiner asserted that Agraharam describes virtual domain nodes at column 3, lines 50-67, in the form of a simulated IP address following the "@" symbol of an email address, for instance, the "email.att.net" portion of the email address, 2015558765@email.att.net. The Examiner stated that the text following the "@" symbol functioned as a virtual domain node. As explained in the October 7<sup>th</sup> interview, the cited portion of Agraharam simply shows a portion of an email address used to forward emails as part of the routing function. However, the "email.att.net" label simply represents an IP address only used for the limited purpose of routing an email to a particular recipient from one address to another. The domain name "email.att.net" is no more than a label representing a domain name. A domain name label, taken alone or as part of an email address, is not a "virtual domain node." For instance, a domain name label does not "define a virtual domain node," nor does Agraharam disclose or suggest associating a plurality of virtual domain attributes with the label, as explained above. Again, reliance on Agraharam is misplaced, and the Agraharam reference cannot support a rejection of claim 1 under 35 U.S.C. § 102(e). This rejection must be withdrawn.

In the rejection of claim 1 under 35 U.S.C. § 102(e), the Office Action also fails to provide an explanation as to how Agraharam shows a virtual domain node which "correspond[s] to a real domain name server in a hierarchically organized directory wherein the hierarchically organized directory is a hierarchical structure that resembles a tree with one major branch at the top and many branches and sub-branches below," for instance, as recited in claim 1. By defining a virtual domain node in this manner, the arrangement of the tree is flexible, allowing administrators to decided how to best deploy

the service for their organization. For some, it may be best to arrange the tree according to the actual business organizational structure or geographic structure. For others, however, a one-to-one mapping to DNS layers may be best (Application as filed, page 12, paragraph 1).

The Office Action states that "[t]he directory structure of a domain is inherently one of hierarch[y] which has a tree structure." (Office Action, page 3, paragraph 5). Such an argument assumes that Agraharam discloses a virtual domain or domain node in the first place. Agraharam does not, for the reasons set forth above. In addition, a routing service, simply providing a one-to-one mapping of email addresses, cannot "inherently" disclose a hierarchically organized directory. There is no basis, in the cited art or otherwise, for suggesting that a one-to-one mapping of email addresses would necessarily be structured as a hierarchically organized directory. Again, as with the features described above, reliance on Agraharam is entirely misplaced. For this additional reason, the rejection of claim 1 under 35 U.S.C. § 102(e) is improper and must be withdrawn.

Dependent claims 3, 5-13, 15, 16 and 17 are dependent upon claim 1 and are, therefore, patentable for at least the same reasons as claim 1.

Independent claims 14, 18 and 26 each incorporate similar features as claim 1 and are, therefore, patentable for similar reasons as claim 1.

The remaining dependent claims, 15-17 and 20-25 are patentable for at least the same reasons as claim the independent claims on which they are based.

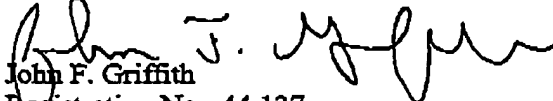
**CONCLUSION**

In view of the above Amendments and Remarks, Applicant submits that the above-identified application is in condition for allowance. Early notification to that effect is respectfully requested.

Should the Examiner believe that a further telephone conference would expedite the prosecution of this application, Applicant's attorney can be reached at the number below.

Respectfully submitted,

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